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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,300	11/30/2005	Christophe Naulet	274267US6PCT	5268

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EXAMINER	
DONDERO, WILLIAM E	

ART UNIT	PAPER NUMBER
3654	

NOTIFICATION DATE	DELIVERY MODE
07/26/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/542,300	NAULET ET AL.	
	Examiner	Art Unit	
	WILLIAM E. DONDERO	3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 May 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12,14,23 and 25-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12,14,23 and 25-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 July 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

Claims 12, 14, 23, and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schiminski et al. (US-4431138) in view of Green (US-3041663), Schippers et al. (US-5016829), Ideno et al. (US-4511095), Sakurauchi (JP-06329437), and Westrich (US-6105896). Regarding Claims 12, 14, and 25, Schiminski et al. disclose a winding machine comprising a frame including a barrel 18 positioned on the frame, at least two spindles 9.1,9.2 fastened to the barrel, each of the spindles being configured to support at least one cake 8 and to be movable in rotation about a first axis substantially perpendicular to a diameter of the cake; at least one positioning and guidance device 1 configured to move the at least one thread with a primary stroke movement to position and guide at least one thread 6 on the spindles; an actuator configured to drive the spindles in a secondary stroke movement such that the spindles move linearly in forward and reverse directions along the first axis (see Column 4, Line 68 – Column 5, Line 4); and a thread retraction device 11 configured to displace the at least one thread by grasping the thread and rotating between a second position, in which the at least one thread is attached to one of the spindles and retracted from the positioning and guidance device, and a third position, in which the at least one thread is engaged with the positioning and guidance device; wherein the barrel is mounted

movably in rotation with respect to the frame along a third axis of rotation substantially parallel to the first axis (Figures 1-12). Schminski et al. does not expressly disclose a thread drawer including at least two motor-driven rollers configured to hold at least one thread at a first position before the thread is attached to any of the at least two spindles, the rollers being fastened to the frame of the winding machine at a position directly below the at least two spindles; a straight ejector positioned above the at least two spindles and configured to move the thread from the first position to a second position such that the thread is attached to one of the spindles; a linear actuator configured to continuously drive the spindles in forward and reverse directions along the first axis during winding of at least one thread; the thread retraction device being positioned above the at least one positioning and guidance device; a control and command device configured to ensure a regulation of speed and/or of position between a primary stroke movement of the positioning and guidance device and a secondary stroke movement of at least one of the spindles; a indexing device configured to control a position of the barrel with respect to the frame by continuously modifying an angular position of the barrel as a function of a variation in the outside diameter of the cake, to keep a path of the thread constant between its exit point from the positioning and guidance device and its contact point on a periphery of the cake; wherein the positioning and guidance device includes at least one helix mounted movably in rotation about a second axis, substantially parallel to the first axis; and the thread overlaps a distal end of the one of the spindles when the thread is held at the first position.

However, Green teaches a winding machine comprising at least one positioning and guidance device 24 configured to move in a primary stroke movement (the movement being rotational) to position and guide at least one thread 19 on a spindle 18; a linear actuator 46 configured to continuously drive the spindle linearly in forward and reverse directions along a first axis during winding of the at least one thread; and wherein the positioning and guidance device includes at least one helix 24 mounted movably in rotation about a second axis, substantially parallel to the first axis (Figures 1-2; Column 3, Lines 63-74). Because both Schminski and Green teach building a thread package using a positioning and guidance device coordinated with a rotating spindle, it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the positioning and guidance (rotational primary stroke movement) and linearly shifting spindle of Green for the linear shifting positioning and guidance device and rotating spindle of Schminiski to achieve the predictable result of building the desire thread package as taught by Green (Column 3, Lines 63-74).

Further, Schippers et al. teach a winding machine comprising a thread retraction device 25 positioned above at least one positioning and guidance device 4 and configured to displace at least one thread 3 by grasping the thread and rotating between a second position (Figure 1B), in which the at least one thread is attached to one of the spindles and retracted from the positioning and guidance device, and a third position (Figure 1A), in which the at least one thread is engaged with the positioning and guidance device (Figures 1-8). It would have been obvious to one of ordinary skill in the art at the time of the invention to move the thread retraction device of Schminski to

above the positioning and guidance device as taught by Schippers et al. to achieve the predictable result of allowing the thread to be disengaged from the positioning and guidance device.

Furthermore, Ideno et al. teach a thread drawer including at least two motor-driven rollers 9,10,11 configured to hold at least one thread 2b at a first position before the thread is attached to any of at least two spindles 6,6', the rollers being fastened to the frame of the winding machine at a position directly below the at least two spindles; a straight ejector 16 positioned above the at least two spindles and configured to move the thread from the first position to a second position such that the thread is attached to one of the spindles; and the thread overlaps a distal end of the one of the spindles when the thread is held at the first position (see Figure 6) (Figures 1-18). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the thread drawer and straight ejector of Ideno et al. to the winding machine of Shiminski et al. to assist with starting the winding of new packages as taught by Ideno et al.

Moreover, Sakurauchi discloses a winding machine with a control and command device 39 configured to ensure a regulation of speed and/or of position between a primary stroke movement of the positioning and guidance device and a secondary stroke movement of at least one of the spindles (Translation Page 8-9, Paragraph [0020]). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the command and control device of Sakurauchi to the machine of Schiminski et al. in view of Green, Schippers et al., and Ideno et al. to have precise

control of the winding parameters producing the desired package as taught by Green (Column 3, Line 54 – Column 4, Line 2).

Additionally, Westrich teaches a winding machine comprising a index device configured to control a position of the barrel with respect to the frame by continuously modifying an angular position of the barrel as a function of a variation in the outside diameter of the cake, to keep a path of the thread constant between its exit point from the positioning and guidance device and its contact point on a periphery of the cake (Column 10, Line 60 – Column 11, Line 17). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the index device of Westrich in the machine of Schminski et al. in view of Green, Schippers et al., and Ideno et al. to control the shape, size, and quality of the package as taught by Westrich.

Regarding Claim 27, Schminski et al. does not expressly disclose wherein to of the positioning and guidance devices overlap the spindles in a lengthwise direction.

However, Sakurauchi teaches a winding machine wherein two positioning and guidance devices 13 overlap the spindles in a lengthwise direction (Figures 2-4). It would have been obvious to one of ordinary skill in the art at the time of the invention to add another positioning and guidance device overlapping the spindles in Schminski et al. to allow more than one cake to be wound simultaneously as taught by Sakurauchi.

Regarding Claims 23 and 26, Schminiski et al. disclose a method for winding cakes comprising positioning a first spindle 9.1 and a second spindle 9.2 on a barrel 18

located within a frame; rotating the barrel so that the first spindle is in a thread receiving position; grasping a thread 6 with a thread retraction device 11 and rotating the thread between a second position, in which the thread is attached to the first spindle and retracted from a positioning and guidance device 1, and a third position, in which the thread is engaged with the positioning and guidance device; rotating the first spindle having the thread around a first axis; guiding and positioning the thread onto the spindle with a primary stroke movement of the positioning and guidance device; driving the first spindle in a secondary stroke movement linearly in forward and reverse directions along the first axis (see Column 4, Line 68 – Column 5, Line 4); and after building up the thread on the first spindle, rotating the barrel so that the second spindle is in the thread receiving position (Figures 1-12). Schminiski et al. are silent about holding at least one thread at a first position with rollers before the thread is attached to the first spindle or the second spindle, the rollers being fastened to the frame of the winding machine at a position directly below the first spindle and the second spindle; moving the thread from the first position to a second position with a straight ejector positioned above the first spindle and the second spindle such that the thread is attached to the first spindle; the thread retraction device positioned above the positioning and guidance device; driving continuously the first spindle linearly in a forward and reverse direction along the first axis while the first spindle is in the thread receiving position; regulating speed and/or position between the primary stroke movement of the positioning and guidance device and the secondary stroke movement of at least the first spindle; modifying continuously an an angular position of the barrel with respect to the frame as a function of a variation

in an outside diameter of the cake formed on the first spindle, to keep a path of the thread constant between its exit point from the positioning and guidance device and its contact point on a periphery of the cake; and wherein the thread overlaps a distal end of the first spindle when the thread is held at the first position.

However, Green discloses a method of winding cakes comprising guiding and positioning a thread 19 onto a spindle 18 with a primary (rotational) stroke movement of a positioning and guidance device 24 and driving continuously the spindle 18 in a secondary stroke movement linearly in a forward and reverse directions along the first axis (via linear actuator 46) while the spindle is in a thread receiving position (Figures 1-2; Column 3, Lines 63-74). Because both Schminski and Green teach building a thread package using a positioning and guidance device coordinated with a rotating spindle, it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the positioning and guidance (rotational primary stroke movement) and linearly shifting spindle of Green for the linear shifting positioning and guidance device and rotating spindle of Schminiski to achieve the predictable result of building the desire thread package as taught by Green (Column 3, Lines 63-74).

Further, Schippers et al. disclose a method for winding cakes, comprising grasping a thread 3 with a thread retraction device 25 positioned above a positioning and guidance device 4 and rotating the thread retraction device grasping the thread between a first position (Figure 1B), in which the thread is retracted from the positioning and guidance device, and a second position (Figure 1A), in which the thread is engaged with the positioning and guidance device (Figures 1-8). It would have been obvious to

one of ordinary skill in the art at the time of the invention to move the thread retraction device of Schminski to above the positioning and guidance device as taught by Schippers et al. to achieve the predictable result of allowing the thread to be disengaged from the positioning and guidance device.

Furthermore, Ideno et al. disclose a method for winding cakes comprising holding at least one thread 2b at a first position with rollers 9,10,11 before the thread is attached to a first spindle 6 or a second spindle 6', the rollers being fastened to the frame of the winding machine at a position directly below the first spindle and the second spindle; moving the thread from the first position to a second position with a straight ejector 16 positioned above the first spindle and the second spindle such that the thread is attached to the first spindle; and wherein the thread overlaps a distal end of the first spindle when the thread is held at the first position (see Figure 6) (Figures 1-17). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the rollers and straight ejector and the corresponding method steps of Ideno et al. to the method of Schminski et al. to assist with starting the yarn on the new package as taught by Ideno et al.

Moreover, Sakurauchi discloses a method for winding cakes comprising regulating(via a control and command device 39) speed and/or of position between a primary stroke movement of the positioning and guidance device and a secondary stroke movement of at least one of the spindles (Translation Page 8-9, Paragraph [0020]). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the command and control device of Sakurauchi to the machine of

Schiminski et al. in view of Green, Schippers et al., and Ideno et al. to have precise control of the winding parameters producing the desired package as taught by Green (Column 3, Line 54 – Column 4, Line 2).

Additionally, Westrich teaches a method for winding cakes comprising modifying continuously an angular position of the barrel with respect to a frame as a function of a variation in the outside diameter of the cake formed on a first spindle, to keep a path of the thread constant between its exit point from the positioning and guidance device and its contact point on a periphery of the cake (Column 10, Line 60 – Column 11, Line 17). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the index device of Westrich in the machine of Schminski et al. in view of Green, Schippers et al., and Ideno et al. to control the shape, size, and quality of the package as taught by Westrich.

Regarding Claim 28, Schminski et al. does not expressly disclose wherein to of the positioning and guidance devices overlap the spindles in a lengthwise direction.

However, Sakurauchi teaches a method for winding cakes wherein two positioning and guidance devices 13 overlap the spindles in a lengthwise direction (Figures 2-4). It would have been obvious to one of ordinary skill in the art at the time of the invention to add another positioning and guidance device overlapping the spindles in Schminski et al. to allow more than one cake to be wound simultaneously as taught by Sakurauchi.

Response to Arguments

With respect to Applicant's arguments starting on page 7, line 5 to page 7, line 20, Applicant argues one of ordinary skill in the art would not have found it obvious to continuously move the winding chuck of Schminski in a forward and reverse direction during winding as taught by Green and when modified by Green the device of Schminski cannot turn around a third axis with respect to the frame. Applicant's arguments have been fully considered but they are not persuasive. Green is being to teach an known alternative for traversing a yarn, rotating a helical position and guidance device while linear shifting the spindle during winding instead of just linearly shifting the positioning and guidance device. Regarding the turning about a third axis, the combination would still be able to perform this function as Green is merely used as a teaching reference, which does not require the introduction of all of Green into Schminski. Therefore, the rotation of the device about a third axis as taught by Schminski would still be possible.

With respect to Applicant's arguments starting on page 7, line 21 to page 8, line 2, Applicant argues the guiding device of Schminski does not include blades and thus would not be able to accurately work with the yarn lifting device of Schippers. Applicant's arguments have been fully considered but they are not persuasive. Absent any secondary evidence, the yarn lifting device of Schippers would work with any type of positioning and guidance device, including that of Shminski or Green.

With respect to Applicant's arguments starting on page 8, line 3 to page 8, line 6, Applicant argues the straight ejector of Ideno would require the straight ejector to be synchronized with the movement of the positioning and guidance device of Schminski which would be complex, if not impossible to realize. Applicant's arguments have been fully considered but they are not persuasive. Absent any secondary evidence, as Ideno teaches synchronizing the movement of the straight ejector with the positioning and guidance device of Ideno, one of ordinary skill in the art would recognize and have the ability to do a similar synchronization with the positioning and guidance device of Schminski

With respect to Applicant's arguments starting on page 8, line 7 to page 8, line 16, Applicant argues the spindles in Sakurauchi do not move linearly during winding and there is only a secondary stroke movement for replacement, so there is no evidence to suggest the controller of Sakurauchi is adapted for controlling primary and secondary movements. Applicant's arguments have been fully considered but they are not persuasive. As admitted by Applicant, in page 8, line 14, Sakurauchi discloses a secondary linear stroke movement during replacement. Sakurauchi discloses this movement is controlled by a controller. Therefore, the controller of Sakurauchi is adapted for controlling primary and secondary stroke movements. One of ordinary skill of the art would have recognized this secondary movement can occur during winding as taught by Green and that the computer could be programmed to coordinate the control of both movements.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM E. DONDERO whose telephone number is (571)272-5590. The examiner can normally be reached on M - F 7 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael R. Mansen can be reached on 571-272-6608. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WILLIAM E DONDERO/
Primary Examiner, Art Unit 3654